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ABSTRACT

The synthesis of stage fright research by Clevenger (1959) has been widely accepted and used by writers in the speech field. Since 1959, additional research has appeared which warrants an updating of Clevenger's synthesis. Such a followup synthesis is the purpose of this paper. It assumes familiarity with the first article. Measuring stage fright by observer rating scales has received considerable attention. A factor analysis of observed symptoms found three factors which are similar to each of the three measurement dimensions, suggesting more complex relationships among the three dimensions than previously assumed. Measurement by introspection has remained somewhat static during the decade, but assessing physiological disruption continues, largely based on assumptions of reliability and validity. Surprising findings indicate possible inherent stage fright differences between men and women. It would seem that new research trends could lead to finding stage fright a much more individual and complex construct than was previously thought--one which interacts with personality syndromes in ways unique to relationships among the individual, the speaking environment, and the subject matter. (Author/TS)

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A DECADE OF STAGE FRIGHT RESEARCH (1960-1969): A SYNTHESIS

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A B S T R A C T

Munger, Daniel I., "A Decade of Stage Fright Research (1960-1969): A Synthesis."

The 1959 synthesis of stage fright research by Clevenger[1] has been cited by virtually every writer in the speech field who has treated the stage fright problem. Since 1959, additional research has appeared which warrants an up-dating of Clevenger's synthesis. Such a follow-up synthesis is the purpose of this paper. It assumes reader familiarity with the first article.

Most of Clevenger's sources were old (six to 25 years) at his time of writing. He drew from 17 unpublisned theses and nine journal articles. The past decade has seen a major increase in the number of journal articles and a decrease in the number of theses from the preceding decade, justifying the emphasis in this paper upon published research.

Little advance has been made in developing an adequate definition of "stage fright." Most writers accept Clevenger's hypothesis that the measuring instrument is the only satisfactory definition, and that there is little correlation between stage fright as measured in each of the three measurement dimensions (audience perceived stage fright, cognitively experienced and reported stage fright, and stage fright as measured by physiological disruption). Some writers have attempted to define stage fright in terms of anxiety and stress, others in the realm of personality variables, and still others with its negative relation to self-confidence.

Measurement by observer rating scales has received considerable attention. A factor analysis of observed symptoms found three factors which are surprisingly similar to each of the three measurement dimensions, suggesting a more complex relation between the three dimensions than previously assumed. Various scales, such as a non-lexical Speech Disturbance Catagories scale, have been devised to find an objective quantitative measurement, but with limited success.

Measurement by introspection has remained somewhat static during the decade, possibly due to the early development of one excellent measure which has received wide usage: Gilkinson's "Personal Report of Confidence as a Speaker." A few studies with introspective questionnaires have suggested hypotheses for future study. One study suggests long range implications in increasing confidence by adjusting the speaker's perceived self-image, in other words by altering the way in which the speaker perceives how the audience must perceive him!

Measurement by assessing physiological disruption continues, largely based on assumptions of reliability and validity. These assumptions are subject to serious question. Researchers have not yet isolated distinctions between symptoms of stage fright phenomena and stress and anxiety in general.

Study of the relationships between these measures is still inadequate. A few studies in psychology indicate unclear results, suggesting mainly that relationships between personality and various manifestations of stage fright are probably very complex, and certainly not clear.

Surprising findings indicate possibly inherent stage fright differences between men and women and their compared reactions to the stage fright phenomena and to stage fright measurement.

Some of Clevenger's hypotheses continue to lie dormant, waiting to be tested. Notable is one indicating possible relationship between stage fright and age up to maturity.

There is obviously much to be done in the study of stage fright. It would appear to the writer that new research trends could lead to finding stage fright a much more individual and complex construct than previously thought, one which interacts with personality syndrones in ways unique to relationships between individual, speaking environment, and subject matter.

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[1]Theodore Clevenger, Jr., "A Synthesis of Experimental Research in Stage Fright," QJS, 45 (1959), 134-145.

A DECADE OF STAGE FRIGHT RESEARCH (1960-1969): A SYNTHESIS

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Clevenger's 1959 synthesis of stage fright research[1] has been cited by virtually every subsequent writer in the field of speech communication who has discussed the stage fright problem. In the decade since his article appeared, additional research has been reported which warrants the updating of Clevenger's study. It is therefore appropriate to examine these findings and integrate them into the total synthesis of stage fright research, using Clevenger's original study as a model.

A list of sources cited by Clevenger in 1959 was fairly comprehensive. He referred to 26 items, including nine journal articles and 17 unpublished studies from the period 1934-1958. Franklin Knower's annual "Index of Theses and Dissertations" in Speech Monographs lists a total of 43 pertinent studies conducted through 1958. Clevenger's citation of 17 represents 40.5 per cent of this total. However, the bulk of this scholarship was not recent at his time of writing. For example, from his most recent six year period (1953-58), he cites but two unpublished studies (his own dissertation and the thesis of T. R. King, then a Florida State University colleague, both dated 1958) of the total of 16 listed in Speech Monographs. From the preceding five year

period (1948-52) he cites 10 studies from the 20 listed in Speech Monographs, and from the period prior to 1948 he cites five of the seven listed. Published articles included material from two of the omitted dissertations of the 1948-52 period.

This omission of recent research notwithstanding, the present study will assume, with some few exceptions, the comprehensiveness of Clevenger's model. His material generally will not be repeated here. For this reason, the reader may wish to examine Clevenger's synthesis before continuing with the present one. For completeness, the reader should also consider Robinson's synthesis[2] which focused on practical pedagogy.

This writer is primarily concerned with published research, but will also draw from two unique dissertations. Eleven recently published articles were chosen for synthesis, eight from speech journals and three from psychology publications. The current decade has produced more published articles but fewer theses on stage fright than did the previous decade. Clevenger cites three articles from the 1949-58 period. Listing unpublished studies, Knower notes 13 in the 1959-68 period, as compared with 34 from the 1949-58 period (of which Clevenger cites 11). Causes for this trend in stage fright research are not clear, but the trend does justify the need for synthesizing research.

This paper builds upon Clevenger's foundation, using selected recent materials in bringing stage fright research

up to date. Clevenger's emphasis on definition and measurement will be continued, as will his method of summarization in listing hypotheses for future research.

The Problem of Definition

Clevenger concluded that our only meaningful definition of stage fright consisted of the measuring instrument used to assess it. He found "no case . . . in which a categorical verbal definition played a controlling role in a stage fright experiment, though there [were] few experiments which [did] not offer one."[3] Only the operational definitions were found useful, partially due to the fact that three different measurement variables (introspective reports, observer ratings, and autonomic responses) were commonly labeled "stage fright," while only a very moderate correlation could be established between the three.

During the decade under review (1960-69), little has been accomplished toward a more sophisticated definition of stage fright encompassing these three measurement dimensions. Most experimenters have accepted the differences between three independent variables, indicated in which area they were working, and attempted to measure, compare, and/or treat in the same dimension. Examples of this tendency toward "definition by measurement and treatment" are Bormann and Shapiro,[4] who measured perceived confidence with an introspective measure and then treated to alter that self-concept to increase confidence, and Clevenger and King,[5] who used

observers to determine extent of stage fright and to gather data for a study analyzing visible symptoms of stage fright. Though not their purpose, these and other studies suggest the need to examine the hypothesis: Self-perceived stage fright, audience observed stage fright, and physically measured stage fright are not significantly intercorrelated so as to permit the prediction of one from the measurement of another. Further, there is a need for analysis of each of these variables to isolate the factors unique to each, with a view toward designing specific treatments within each dimension capable of desensitizing speakers of unwanted reactions to disturbing stimuli.

Some attempt has been made to define stage fright in the realm of anxiety and stress. Paivio and Lambert theorize that "an audience situation . . . whether actual, imagined, or anticipated, is anxiety arousing for the performer because of the possibility of unfavorable evaluation."[6] They consider stage fright an extreme case of this "audience anxiety." Their study thus introduced attempts to link "audience anxiety" with "audience sensitivity." A study by Gynther, though not using the term "stage fright," attempts to establish the hypothesis: "Under conditions of stress and anxiety, an individual's communicative efficiency is lowered."[7] If "lowered communicative efficiency" resembles stage fright in any of its forms, it would suggest the hypothesis: Stage fright in any of its dimensions (observer rated, introspectively assessed, or physiologically measured) can be experi-

mentally induced by creating a stressful situation in which the speaker feels, shows, or physically exudes excessive anxiety. Such an hypothesis, if accepted, could lead to discovering the relationship between stage fright and anxiety. Comparison of this anxiety with other anxieties (e.g., test anxiety) may serve to better define stage fright.

Others assume stage fright to be lack of confidence. Robinson's dissertation on stage fright is titled, ". . . Methods for the Development of Confidence . . . ."[8] His summary asserts that "stage fright is a conditioned fear response,"[9] implying that it can be alleviated by the development of confidence. Bormann and Shapiro base their study of "Perceived Confidence as a Function of Self-Image"[10] on the premise of a stage fright-confidence polarity. Gilkinson's "Personal Report of Confidence as a Speaker" (PRCS), generally acclaimed a reliable measure of experienced stage fright, is based on this very premise. This suggests the hypothesis: Cognitively experienced stage fright is a negatively accelerated function of a speaker's self-confidence in a given speaking situation.

Measuring Stage Fright

Observed Stage Fright

Although much of the early study of stage fright measurement centered on observer rating scales, there has been a paucity of research in this dimension during the past decade. However, in one study concerned with visible symptoms,

Clevenger and King sought to determine relationships among such symptoms by factor analyzing 18 visible symptoms as displayed by 96 students to three observers.[11] Their analysis rendered three interesting factors, which the authors label: I (Fidgetiness), II (Inhibition), III (Autonomia). It is worthy of note that each of these three factors of observed stage fright resembles one of the three basic dimensions of stage fright measurement. Factor I (Fidgetiness) includes those overt movements that easily distract the observer. Symptoms comprising Factor II (Inhibition) could suggest such activity as a speaker would report experiencing and which he would be much more aware of and concerned about than would the audience (such as "knees tremble"). Factor III (Autonomia) is comprised of observed symptoms of bodily changes that could be measured physiologically. The foregoing indicates the possibility of a relationship among the three measurement variables that is neither correlative nor mutually exclusive, but one in which the observed symptom dimension partially encompasses the other two, being larger, more comprehensive, and having more facility for interrelation than the others. Thus, the hypothesis: <u>Sensitive judges can reliably detect stage fright as represented by all three measurement dimensions</u>. Further factor analysis of symptoms in each of the other dimensions (especially cognition), and ultimately of all symptoms in all dimensions, could be the key to discovering the similarities and differences among dimensions. Factor analysis appears to be capable of pointing to the true

characteristics of stage fright and the interrelationships of the many and varied symptoms. It may show whether stage fright is truly three separate variables, or one phenomenon with three kinds of symptoms which are substantially independent of each other.

Baker's study, using observed stage fright as a measure, is critical of all three of Clevenger's measurement variables on the basis of questionable validity.[12] For example, Baker questions the validity of observer rating scales "because they assume that an isomorphic relation exists between the actual behavioral states of a speaker and perceived behavioral states by the observer."[13] He asserts that varied frames of reference may inhibit the observer. Baker's plan for elimination of these reliability and validity problems is to have observers count non-lexical speech disturbances, using a measure developed by Mahl and termed the "Speech Disturbance Catagories (SDC)."[14] In training his speakers to be smoother in presentation than a control group, (i.e., lower frequency of SDC, such as sentence correction, sentence incompletion, repetition, stuttering, intruding incoherent sound, tongue slip, omission) Baker does not consequently prove that he has eliminated the fear of a speaking situation. Although Mahl reports high reliability and validity in his measure of anxiety, Baker does not demonstrate that speech students can reduce stage fright, but rather that they can reduce their SDC. Baker himself asks the question: "What about the indi-

vidual case of a student speaker who shakes like a leaf but may have no speech disturbance as measured by SDC?"[15]

Mahl's SDC, however, does merit examination for possible use in stage fright research, because of its applicability to the speaking situation and to quantitative measurement. SDC should be correlated with various other stage fright ratings to see if significant relationships exist. It is possible that certain of the SDC catagories might weigh more heavily as anxiety loaded than do others for certain people. Before measuring amount of stage fright with an instrument like SDC, the instrument should be validated for each individual, much as a lie detector is adjusted according to individual client data. An interesting hypothesis is suggested, however: Increasing speech dysfluencies indicate increased fear of the speaking situation.

Self-perceived Stage Fright

Clevenger indicated that there was very little reliability data supporting early introspective measures, with the exception of Gilkinson's "Personal Report of Confidence as a Speaker" (PRCS). Several recent studies geared to introspective measurement use the PRCS as an instrument. For example, Bormann and Shapiro, in hypothesizing that "a speaker's perceived confidence is a function of his self-image"[16] use PRCS scores to measure changes in confidence.

They further hypothesized, more operationally, that as a result of treatment "there would be more change in the group that had low PRCS scores than in those that had high PRCS scores on the pretest."[17] Although this second hypothesis is not supported by the study, their treatment variable for the first hypothesis created a significant difference in post test results, demonstrating that the PRCS score is a function of the speaker's self-image. Their first hypothesis, then, is worthy of further investigation, to the end that stage fright therapy might include some form of adjustment of the speaker's self-image. Bormann and Shapiro report that "not all relevant variables were controlled."[18] Varying levels of assigned preparation, and varying speaker familiarity with topic, may have had some effect. Also, they found that "subjects who were older in terms of chronological age tended to be more stable in their PRCS scores, and although the older experimental subjects gained in PRCS scores they gained fewer points than would have been predicted by their observed behavior as evaluated by the instructor."[19] This tends to support Clevenger's hypothesis that experienced stage fright is a "curvilinear decay function of age . . . ."[20]

Another study using PRCS measurement was Clevenger's attempt to control stage fright variations by manipulation of environmental change.[21] His treatment to temporarily increase stage fright was a simple removal of the lectern from a speaker accustomed to its use. Three classes spoke for six rounds, and in each section the lectern was removed

for one round (rounds 3, 4, and 5, respectively). Clevenger's prediction that mean PRCS scores in each section would increase each round, except during the round in which the lectern was removed, held true in each instance. Unfortunately, in his article, Clevenger omits data regarding individual speakers and supplies only arithmetic means.

Clevenger lists as a major problem the lack of an appropriate test of significance of these mean changes. He insists that an attempt to test for significant lowering of mean scores in each experimental round would fail "to take into account the natural tendency for the PRCS to rise on successive rounds of speaking."[22] He ignores the possibility of estimating the adaptation curve by extrapolation of preceding scores or interpolation within the entire series of scores. It is doubtful whether all the "normal increase" of mean scores is significant. Also, comparison with a control group from whom the lectern is not taken would be helpful. His only test for measuring significance is based on a simple sign test for predicting increase or decrease. The prediction of 12 increments and three decrements was 100% correct, and making 15 successful predictions with no failures by chance alone is shown to be highly improbable. This measure, however, obviously fails to demonstrate significant change in mean PRCS scores as a result of situational change. The data do establish, however, that repeated practice in familiar surroundings does heighten confidence as measured by PRCS.

The study also raises the question of how much transfer effect a speaker can expect on the average in new situations. It further suggests the possibility of isolating various tension producing stimuli for observation and study by systematically varying a number of different situational effects. This study needs to be expanded to test its reverse effect. In other words, was the effect one of change to an unfamiliar setting, or was it a direct result of an available/unavailable lectern? This expansion could easily be effected by adding three more sections of experimental subjects who speak five times without the lectern with the singular introduction of lectern availability to coincide with incidence of lectern removal from the first three experimental sections. However, a portion of Clevenger's hypothesis appears sufficiently tenable to warrant follow-up investigation: <u>In a series of speeches, change in certain situational variables will temporarily increase perceived stage fright which would otherwise have decreased as a result of the normal experience factor</u>.

Additional studies using PRCS measures are those of Welke[23] and Robinson.[24] Welke used it as a post-test measuring differences experienced by speakers with audiences of varying intensionality, in an attempt to compare the relative effects of live audiences, television audiences, and combined live and television audiences on communicator anxiety (stage fright). His speakers spoke to extensional-only audiences, extensional-plus-intensional audiences, and sup-

posed intensional-only audiences. He found little or no relationship between self-reports of speaker anxiety to the degree of audience intensionality. He did find, however, that "speakers experience a significant decrease in audience-centered anxiety over time when speaking to an extensional and to an extensional-plus-intensional audience . . . . [but they] do not experience a significant decrease in audience-centered anxiety over time when speaking to an intensional-only audience."[25] This finding, in conjunction with the report of Bormann and Shapiro,[26] suggests the following hypothesis: PRCS scores are a function of the speaker's perception of favorable audience feedback. Unfortunately, Welke did not test his subjects for their perception of both favorable and unfavorable audience feedback and thus test this hypothesis. He was primarily interested, however, in "mike fright" from the television industry point of view, and thus considered it a main finding that without live audience feedback the broadcaster could not expect the usual decay of anxiety over a period of time.

Robinson used the PRCS as both pre- and post-test measures of the relative effects of various teaching techniques as suggested by textbooks of public speaking. He found that there is a significant increase in PRCS scores following a course in public speaking, but that "there are no statistically significant differences in the confidence gained by students taught under methods emphasizing 'Bodily Control,' 'The Message of the Speech,' 'Speech Preparation,' and 'Direct Sug-

gestion.'"[27] He further found that "the instructor is not a differentiating factor," and that "students maintain relatively the same position in class confidence levels following a period of speech training."[28] Unfortunately, Robinson did not create and test experimental situations which combined in various ways the four emphases. His study does add support, however, to the hypothesis: A speaker's confidence is more a function of speaking experience than of teacher activity in the classroom.

Studies using solely introspective measures other than PRCS include those of Brandes, Gruner, and Nuttall and Scheidel. Brandes tested to determine if students reacted semantically to the words "stage fright." He used similar questionnaires differing only by the use of overt or covert descriptions of stage fright situations and asked students to check their reaction to each situation. His analysis of variance of the means of the pre-tests showed no significant differences, but on the post-tests, "students who took the covert test retained more concern about situations which could bring on stage fright than did subjects who took the overt form."[29] Students using both forms showed less concern for items involving stage fright at the end of the course than they did at the beginning, but at the end, students who took the covert form showed more concern for stage fright items than did those who took the overt form. This difference suggests that students who have had speech training, and developed confidence, may react semantically to the term

"stage fright." When integrated with the above findings concerning perceived confidence and self-image, the following hypothesis is suggested: After a period of successful speech training, speakers will experience greater confidence while speaking, partly due to their own self-image of confidence as developed in the training period.

Gruner's questionnaire asked 121 students whether being graded increased stage fright and whether training had decreased stage fright. Surprisingly, only "36.4 per cent reported that being graded increased their speech fright."[30] Research is needed to establish what effect, if any, speaker evaluation by teachers has on experienced stage fright. Gruner's survey suggests an hypothesis: Awareness of being graded while speaking increases perceived stage fright only in those students who suffer from significant "test anxiety" when taking a paper and pencil examination.

Gruner's questionnaire proceeds to partially replicate an earlier study by Hendrikson.[31] Most of the students in each study reported some decrease in stage fright. There is a remarkable similarity among the perceived factors in this decrease as reported by the two studies, although the studies were done twenty years apart. Both studies show practice as the most important factor in decreasing stage fright. Next in order of importance are the factors involving attitudes of instructors and classmates. Both studies rank feelings of success or failure low in their effect on stage fright. Though hardly qualifying as evidence, these studies lend

support to the many studies that prescribe speaking experience as the number one therapy for stage fright.

Nuttall and Scheidel[32] used introspective reports to study stutterers' apprehensiveness toward speaking as compared with non-stutterers' apprehensiveness in the same situation, and as compared with stutterers' estimates of what their apprehensiveness would be if they did not stutter. An apprehensiveness scale calling for responses to both speech and non-speech items on a six-point scale ranging from "indifference" to "complete panic" was used. No significant difference was found between stutterers, non-stutterers, and stutterers assuming fluency on the non-speech items. However, on the speech items, highly significant differences were found between each of the three. This finding indicates (1) that without the proper guidance, stutterers may set goals that are unrealistic in terms of the norm; (2) that "normal" apprehensiveness is somewhat greater than it would appear to one outside the norm; and (3) that a certain amount of tension is present and desirable in the norm. The foregoing suggests the following hypothesis: <u>Reduction of tension in a speaker is desirable only to a certain point, beyond which optimum speaking performance is inhibited.</u> Robinson, in drawing from his study certain implications for the teacher of speech, encourages the above hypothesis: "A feeling of anticipation is a natural and desirable state. No speaker should hope or attempt to be completely relaxed before an audience."[33]

Physiological Symptoms

The third measure of stage fright is excess tension as recorded by physiological measurements. Clevenger believes that "obviously" the reliability of these instruments can be assumed to be highest of the three measures, but offers no evidence.[34] While the measure of physiological disruption *per se* may be obviously reliable, this does not necessarily mean that it is a reliable measure of the stage fright phenomenon. Clevenger cites no validity data. In fact, he shows only very weak correlation between these measures and both judges' ratings and introspective reports. He appears to suggest that the problem unique to speakers is only to that extent related to measurable autonomic tension. Others have questioned Clevenger's assumption. Baker questions both the reliability and validity of Clevenger's findings, as well as the practical usefulness of these measures.[35] Welke questions Clevenger's basing reliability on assumption, and cites recent work by psychologists which "casts doubt on this assumption as a general case."[36] Paivio and Lambert found palmar sweat scores consistently higher than both nonstress and normal day means, but with no significant differences, and they were unable to confirm their "prediction that increments in PSI would reflect the experimental variable."[37] It would appear that, although it is an exciting concept, the Palmar Sweat Index as a consistent indicator of disruption as it affects the speaking process needs significant supporting data.

An interesting study by Bode and Brutten[38] moves in the direction of assuming a relationship between stage fright and physical responses (partially on the basis of Clevenger's assumption and certain validation studies which are open to question). Their study does suggest that palmar sweat may be a general index to the emotions, but doesn't necessarily isolate that portion of emotionality that appears in stage fright. Studies of this nature assume that stage fright consists of all bodily and emotional change that accompanies a speaking situation. Bode and Brutten's data causes the reader to wonder in what way the stage fright syndromes differ from general emotional disruptions.

The Bode and Brutten study indicates that the severity of palmar sweating decreases during four brief oral reading periods before an extensional audience of one listener. The difference between trials one and four is significant. This gain is then lost during a fifth reading before a supposed intensional audience of peers or of faculty members. Amounts of sweating induced by the supposed peer and faculty audiences did not differ significantly. If we assume that palmar sweat is an index of some form of stage fright, we see the need to study speaker perception of audience as the key to combatting stage fright. Unfortunately, Bode and Brutten, like Welke, do not compare favorable and unfavorable feedback from the extensional audience.

One of Clevenger's major findings in synthesizing stage fright research was that there was little interdependence

between the three generally used measures of stage fright.[39] A lack of recent research attempting either to find correlation or to determine what the differences are may indicate a general acceptance of that hypothesis. This acceptance is tenable, at least for the present, both because of research findings cited by Clevenger, and because the three measures of stage fright seem to coincide with the three basic ways of assessing emotion as listed by psychologists who see the relationship between them as probably complex, and certainly not clear.[40]

Three studies in psychology, however, have attempted to measure this relationship. Paivio and Lambert[41] correlated an Audience Sensitivity Index (ASI) consisting of selected personality inventory type questions with an Audience Experience Data (AED) questionnaire (correlation ranging between -.12 and -.39). They used these data to classify the anxiety level of subjects who were to be placed in a stressful situation (in anticipation of speaking) and compared with control subjects on the basis of PSI. The stress condition PSI mean scores did not produce significant differences, however, for the measurement to be meaningful. The authors concluded that the PSI scores "may have been a function of factors other than the experimental variable."[42] The study is useful in presenting the relationship implied by the ASI-AED correlation, both instruments being introspective in nature, and is more specifically useful in suggesting possible influences of personality variables as measured by projective tests.

One of their predictions is supported, that "measures of audience sensitivity (and anxiety) should correlate negatively with indices of the frequency of rewarded past experience in audience situations."[43] The authors note, almost parenthetically, that they and other researchers have ignored the other side of audience influence, the craving for an audience, as emphasized by Hollingworth in 1935.[44]

Korobow attempts to relate personality traits to reactions under stress.[45] His method of producing stress was audiogenic (AS), and his responses were quantified in terms of vocal response variables, which makes his study appropriate to this synthesis. He was able to produce and control stress, and to correlate non-lexical vocal reactions with certain personality traits and with subjective reports of feelings during stress and subject's interpretation of the AS situation. The interdimensional relationship between observed and reported stress is assumed, not demonstrated. However, "A significant relationship between the type of verbal errors made under stress and personality traits indicates the probability that stress behavior reflects a hierarchical level of trait organization which is dependent upon the pattern of traits which are operant at that time."[46]

Gynther hypothesizes that "under conditions of stress and anxiety, an individual's communicative efficiency is lowered."[47] She used the Welsh Anxiety ("A") Scale (consisting of 39 MMPI items that correlated with anxiety) to select high and low "A" subjects. She placed half of each group

(high and low "A") in a stressful interview situation, and the other half in a similar but non-stressful interview situation. Interview responses were scored on the basis of Calvert's Communicative Effeciency (CE) scale (based on significance of thought units). She concludes: . "An analysis of variance showed no interaction between anxiety and stress. The Ss low in anxiety were found to have CE scores that were significantly higher than those of Ss high in anxiety and stressed Ss to have lower CE scores than the nonstressed Ss. These results were interpreted as indicating that anxiety and stress interfere with a person's effectiveness of communication."[48]

This study indicates that the introspective anxiety scale correlates negatively with the observed CE scale (people with high "A" have low CE, and vice versa). Although the subject scores are significantly different, the correlation coefficient is not presented, and thus we cannot accept the assumption that both "A" and CE measure the same variable. The study is valuable, however, in suggesting a relationship between anxiety and stress and the causes of communicative disruption. It would appear that if both measurements were made in both dimensions (self-perceived and judge's rating), such a study would have additional usefulness. Also, the measuring devices presented may be useful in future research.

According to Clevenger, sex differences affected the measurement of both observed and experienced symptoms. This problem still persists. For example, Brandes found sex

differences in his semantic reaction measure when correlated with such other variables as achievement in high school.[50] Paivio and Lambert, in comparing projective test data, noted that the male stress group mean was higher than the male neutral mean (non-significant difference), and that the female stress projective score mean was significantly lower than the female neutral mean.[51] This personality and sex difference data, when compared with Clevenger's yet unsatisfied hypothesis, suggests the possibility of sex differences in stage fright that relate to sex-inherent personality differences. Data on this is yet too scattered for a meaningful hypothesis. It does recommend that experimental data in future studies should be sex-differentiated to determine if there are significant differences with the particular variable being tested.

Concluding Observation

A comparison of the foregoing discussion with Clevenger's original synthesis will point to a number of research areas still needing study. Among these areas is the age factor. For example, the hypothesis that experienced stage fright is a curvilinear decay function of age, leveling off at maturity,[52] could be explored in a study correlating stage fright decay with mental age scores, as used in computing I.Q. (which also level off at this point), to determine if there is a relation between mental age, I.Q., and stage fright.

Also, relationships between stage fright (expressed and observed) and various psychological measures need to be expanded. Some very basic work has been done with personality, social adjustment, emotional adjustment, anxiety, emotionality, and the like, but the surface is barely scratched. Is it possible that stage fright will eventually be identified as a much more complicated phenomenon than we now realize, relating to highly individualized personality traits that will vary for each speaker? Could such a finding lead to the psychological tailoring of "minimum change therapy"[53] to aid the otherwise normal speaker in optimal adaptation to a specific audience situation? Phillips points in this direction as he pursues the problem of reticence as a "pathology of the normal speaker."[54] He suggests that there is a difference between "reticence" and "stage fright." This distinction lends itself to experimental testing. Phillips asks such penetrating questions as, what special treatment should be administered to the reticent, as distinguished from the stage frightened speaker, in the public speaking classroom? This and other questions must be answered experimentally.

In summary, the foregoing synthesis of stage fright research suggests experimental testing of the following hypotheses:

1. Self-perceived stage fright, audience observed stage fright, and physically measured stage fright are not significantly intercorrelated so as to permit the prediction

of one from the measurement of another.

2. Stage fright in any of its dimensions (observer rated, introspectively assessed, or physiologically measured) can be experimentally induced by creating a stressful situation in which the speaker feels, shows, or physically displays excessive anxiety.

3. Cognitively experienced stage fright is a negatively accelerated function of a speaker's self-confidence in a given speaking situation.

4. Sensitive judges can reliably detect stage fright as represented by all three measurement dimensions.

5. An increase over normal speech dysfluencies indicates a degree of fear of the speaking situation.

6. A speaker's PRCS score is a function of his self-image.

7. Change in certain situational variables will temporarily increase perceived stage fright which would otherwise have decreased as a result of the normal experience factor.

8. PRCS scores are a function of the speaker's perception of favorable audience feedback.

9. A speaker's confidence is more a function of speaking experience than of teacher activity in the classroom.

10. After a period of successful speech training, speakers will experience greater confidence while speaking, partly due to their own self-image of confidence as developed in the training period.

11. Awareness of being graded increases perceived stage

fright only in those students who suffer from significant "test anxiety" when taking a paper and pencil examination.

12. Reduction of tension in a speaker is desirable only to a certain point, as yet unidentified, beyond which optimum speaking performance is inhibited.

NOTES

[1]Theodore Clevenger, Jr., "A Synthesis of Experimental Research in Stage Fright," QJS, 45 (1959), 134-145.

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